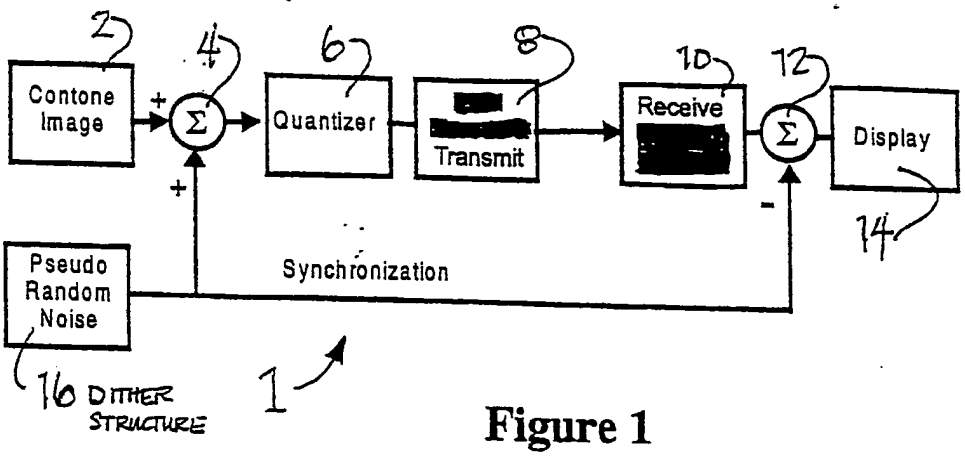

Figure 1

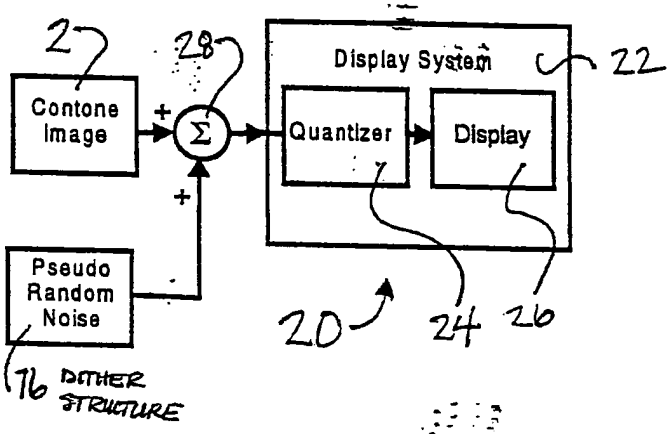

Figure 2

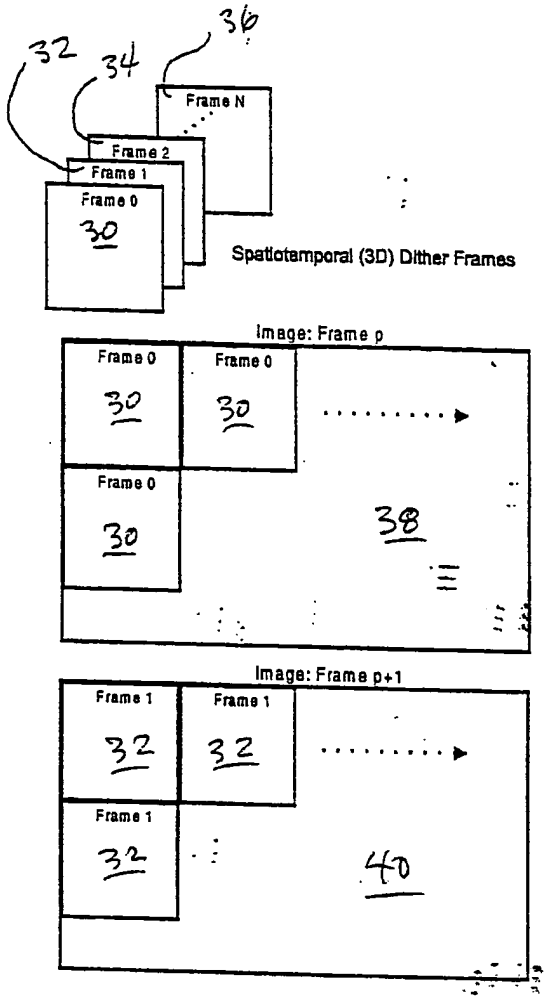
32
34
36
Frame N
Frame 2
Frame 1
Frame 0
30
Spatiotamporal (3D) Dither Frames
Image: Frame p
Frame 0
30
Frame 0
30
Frame 0
30
38
Image: Frame p+1
Frame 1
32
Frame 1
32
Frame 1
32
40

Figure 3

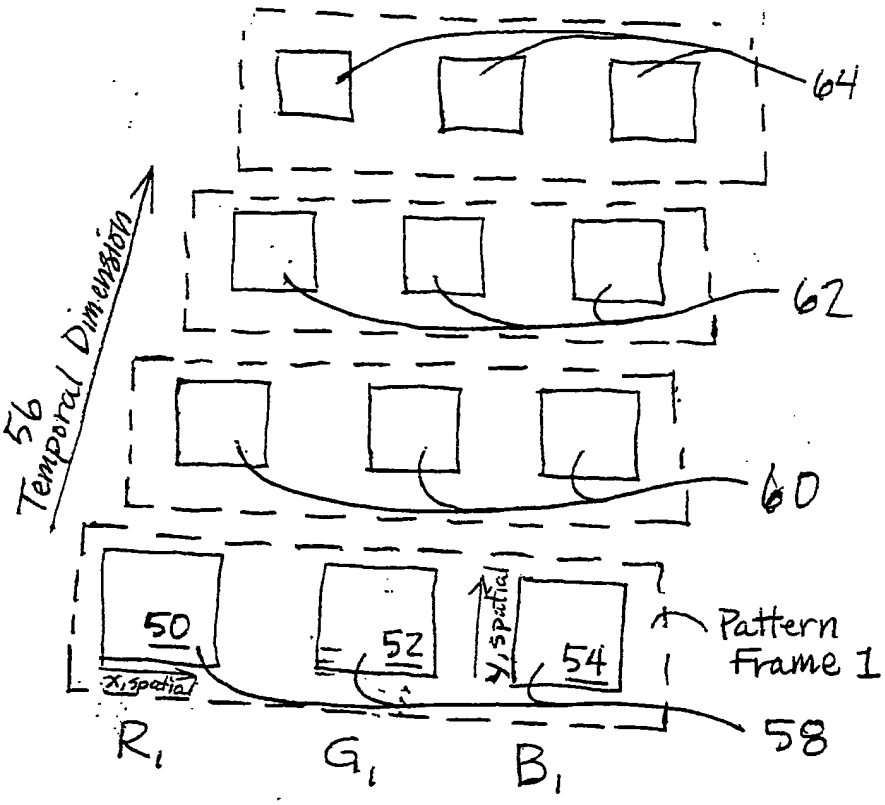
64
62
60
56
Temporal Dimension
50
52
54
X, Spatial
Y, Spatial
Pattern
Frame 1
58
R1
G1
B1

Fig. 4

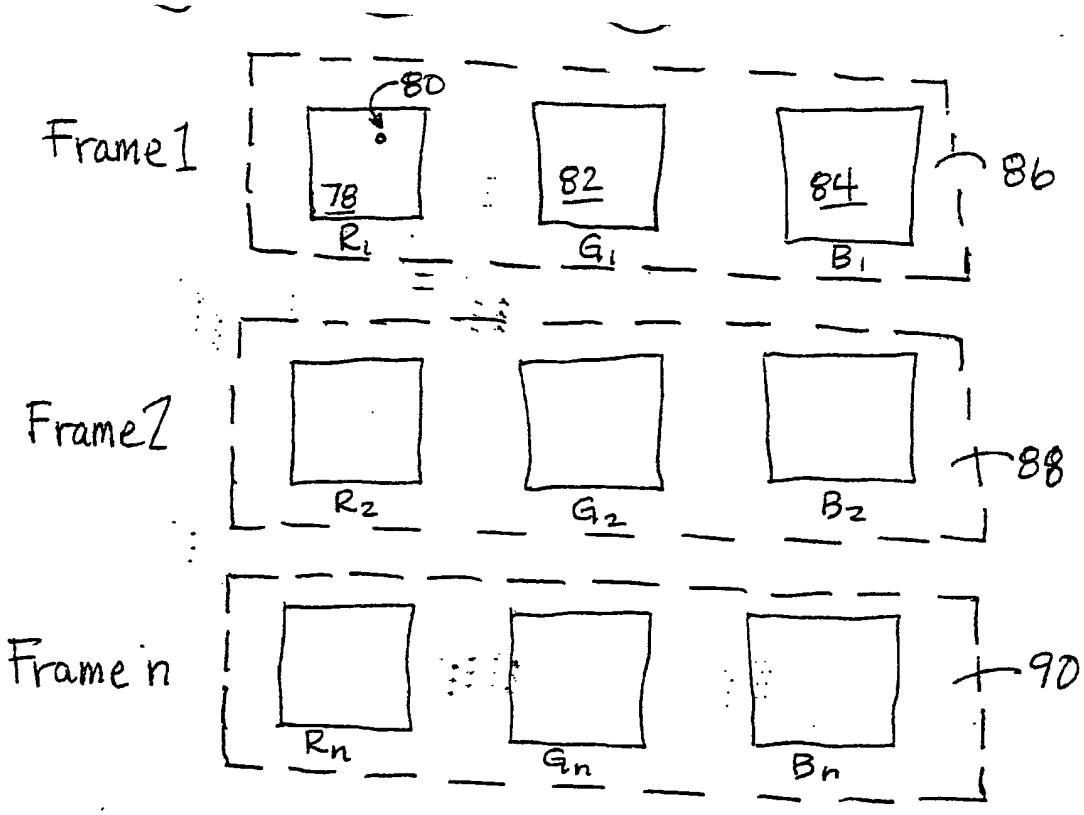
Frame 1
80
78
R_1
82
G_1
84
B_1
86
Frame 2
R_2
G_2
B_2
88
Frame n
R_n
G_n
B_n
90

Fig. 5

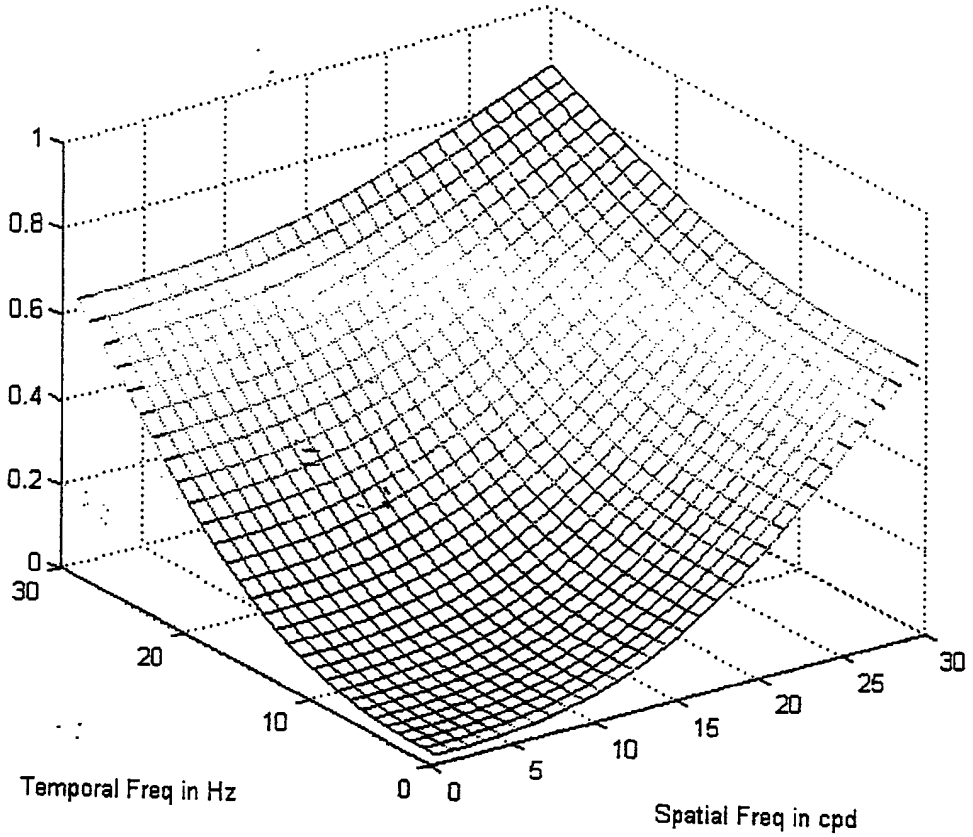
1
0.8
0.6
0.4
0.2
0
30
20
10
0
Temporal Freq in Hz
0
5
10
15
20
25
30
Spatial Freq in cpd

Figure 6

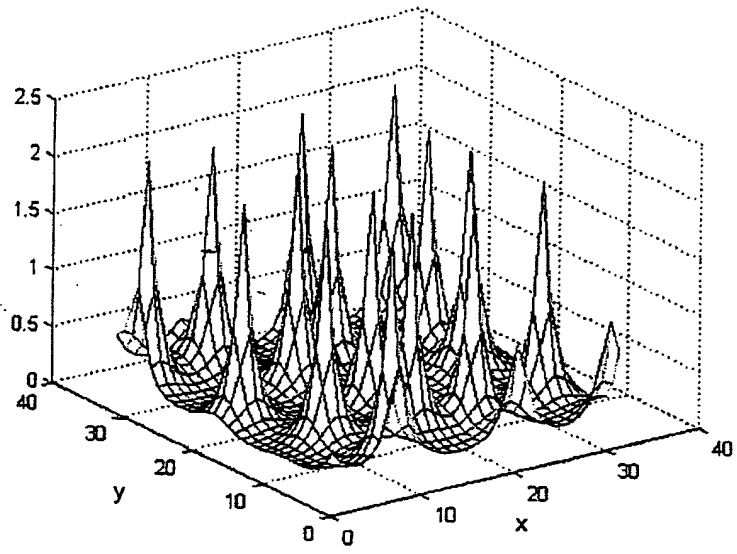

FIG. 7

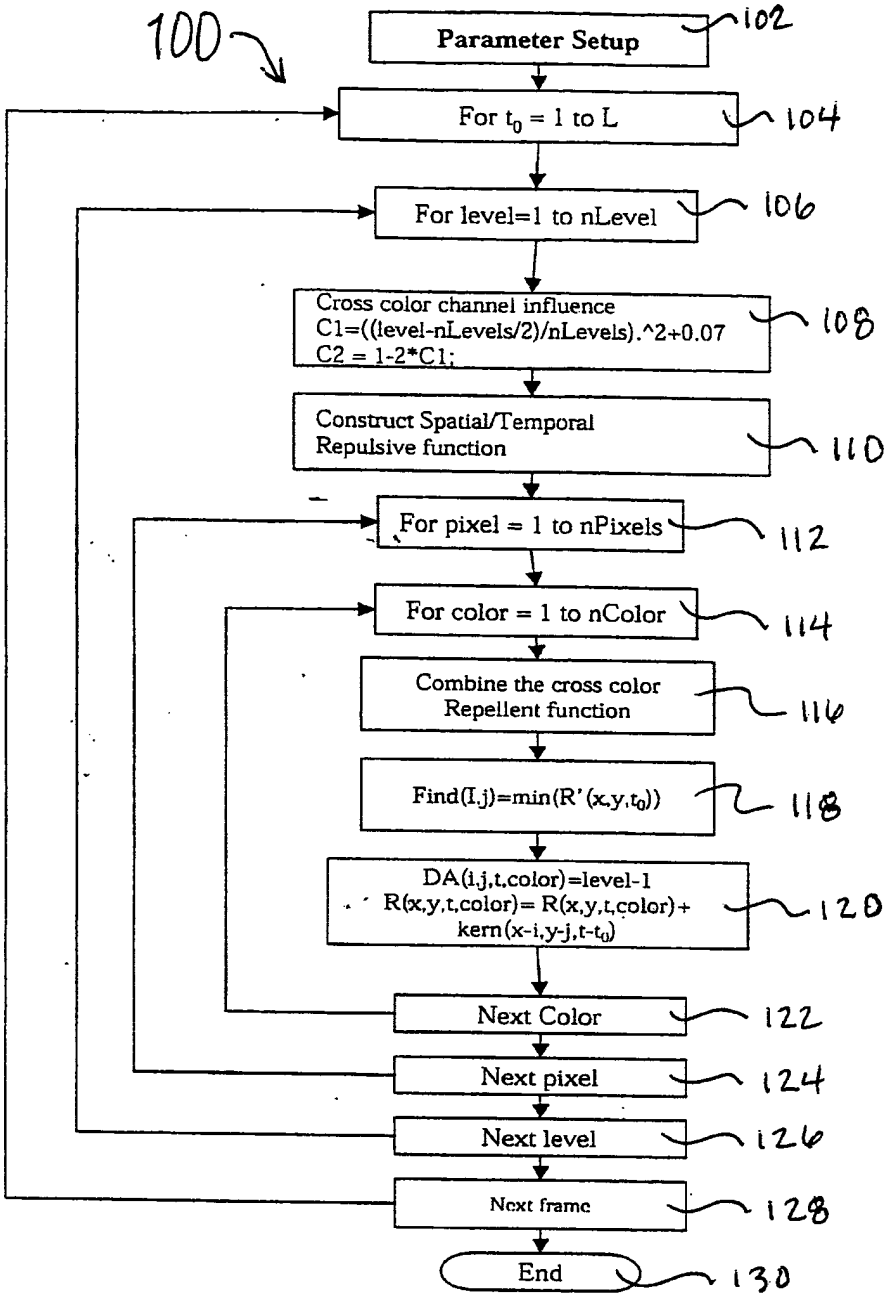
100
Parameter Setup
102
For t_0 = 1 to L
104
For level=1 to nLevel
106
Cross color channel influence
C1=((level-nLevels/2)/nLevels).^2+0.07
C2 = 1-2*C1;
108
Construct Spatial/Temporal
Repulsive function
110
For pixel = 1 to nPixels
112
For color = 1 to nColor
114
Combine the cross color
Repellent function
116
Find(I,j)=min(R'(x,y,t_0))
118
DA(i,j,t,color)=level-1
R(x,y,t,color)= R(x,y,t,color)+
kern(x-i,y-j,t-t_0)
120
Next Color
122
Next pixel
124
Next level
126
Next frame
128
End
130

FIG. 8

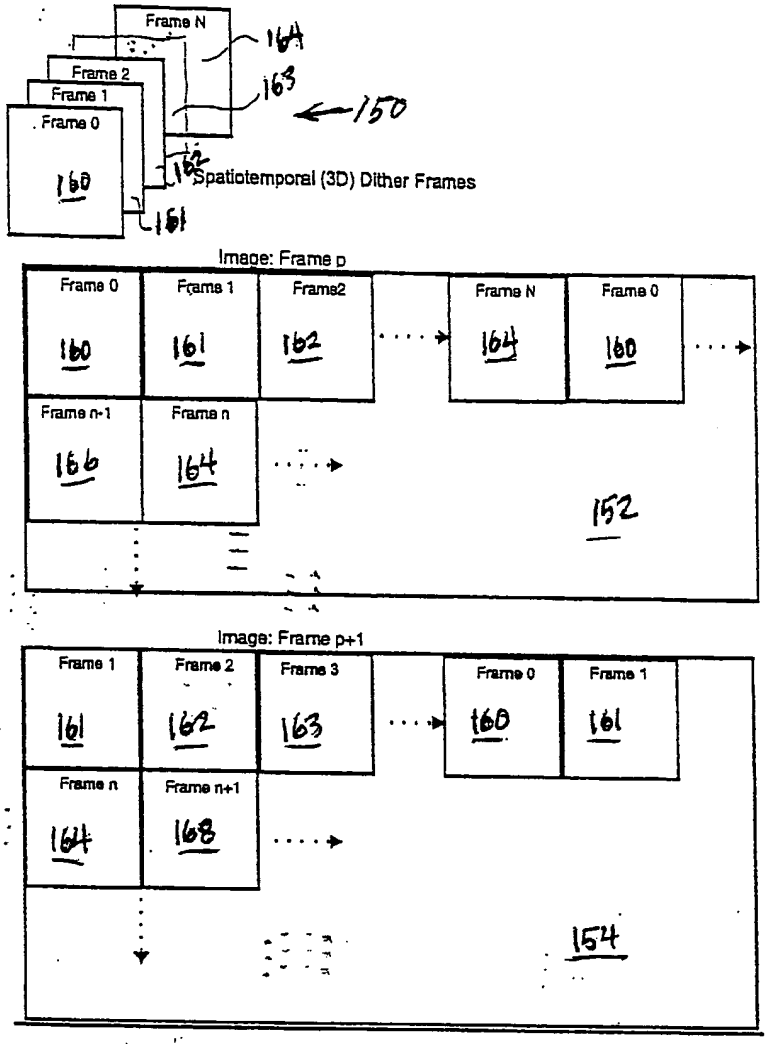
Frame N
Frame 2
Frame 1
Frame 0
160
164
163
150
162
161
Spatiotemporal (3D) Dither Frames
Image: Frame p
Frame 0
Frame 1
Frame2
Frame N
Frame 0
160
161
162
164
160
Frame n-1
Frame n
166
164
152
Image: Frame p+1
Frame 1
Frame 2
Frame 3
Frame 0
Frame 1
161
162
163
160
161
Frame n
Frame n+1
164
168
154
simultaneous spatio and temporal incrementing

Fig. 9

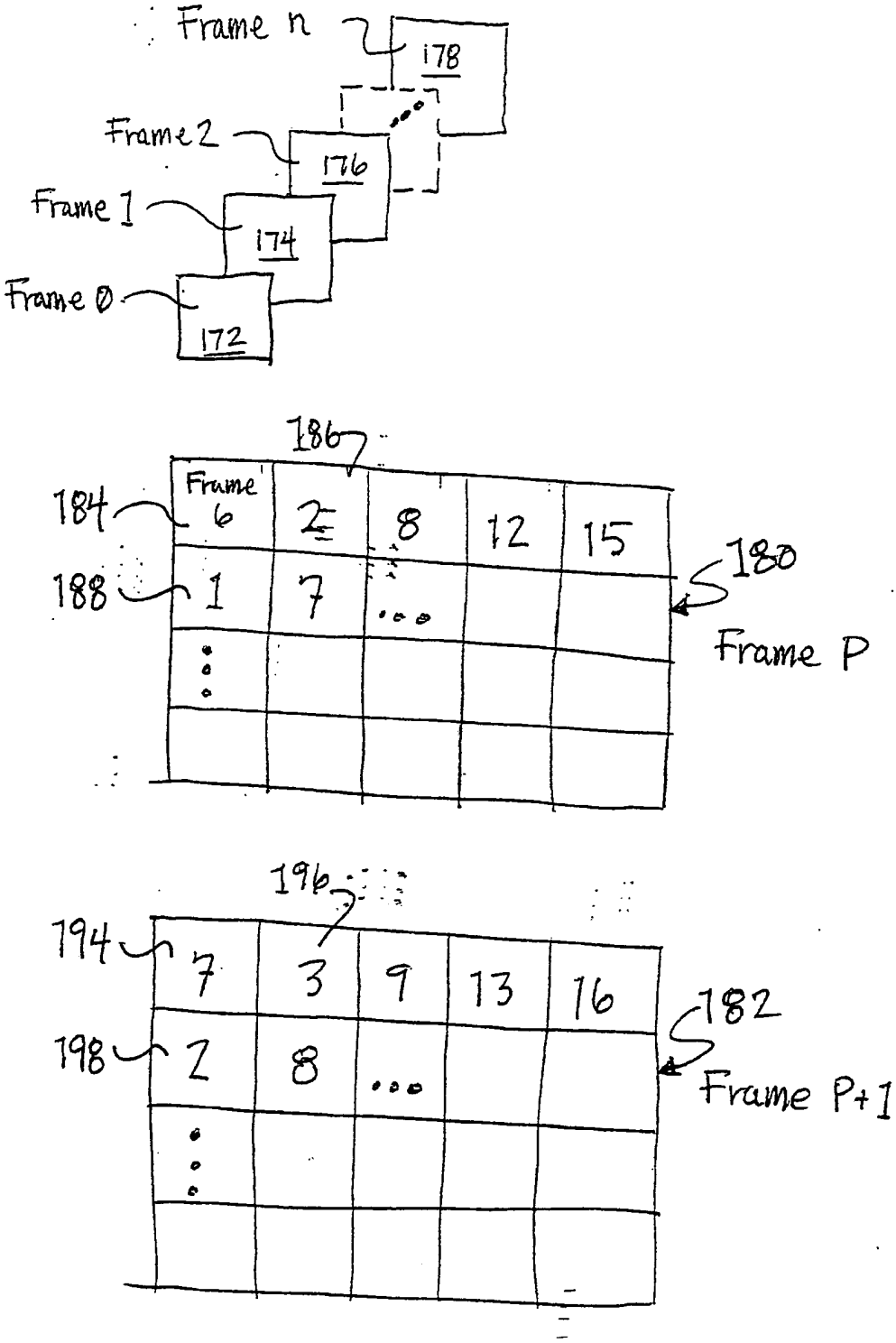
Frame n
178
Frame 2
176
Frame 1
174
Frame 0
172
186
184
Frame
6
2
8
12
15
188
1
7
180
Frame P
196
194
7
3
9
13
16
182
198
2
8
Frame P+1

Fig. 10